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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,956	07/14/2003	Shalini Periyalwar	0583P40US02	4457

26123 7590 12/30/2005

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EXAMINER
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NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,956

Applicant(s)

PERIYALWAR ET AL.

Examiner

Tu X. Nguyen

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 6 and 8-10 is/are allowed.
- 6) ☒ Claim(s) 4, 5 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/14/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 4-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmutz (US Patent 6,718,160).

Regarding claim 4, Schmutz discloses an intelligent relay for use within a cellular network, said intelligent relay comprising:

- an uplink transmitter (see 29B, fig.4);
- an uplink receiver (see 29B; fig.4);
- a downlink transmitter (see 29A, fig.4);
- a downlink receiver (see 29A, fig.4); and
- a relay transfer buffer (see col.7 lines 19-20);

wherein said uplink transmitter and said uplink receiver operate simultaneously during uplink transmission and said downlink transmitter and said downlink receiver operate simultaneously during downlink transmission (see col.5 lines 18-31), and said relay transfer buffer operates to facilitate such simultaneous transmissions (see col.7 lines 19-30).

Regarding claim 5, Schmutz discloses intelligent relay is sectorized (see col.4 lines 39-42) so as to minimize interference with base station transmissions.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmutz in view of Mathews (US Pub. 2002/0077151).

Regarding claim 7, Schmutz fails to disclose intelligent relay is operable with a base station including a means for power control in coordination with rate control wherein said power control means provides for minimization of interference between base station transmissions and relay transmissions by said uplink transmitter and said downlink transmitter.

Mathews discloses intelligent relay is operable with a base station including a means for power control in coordination with rate control wherein said power control means provides for minimization of interference between base station transmissions and relay transmissions by said uplink transmitter and said downlink transmitter (see par.068). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Schmutz with the above teaching of Mathews in order to provide power management to improve overall performance of all individual channels.

***Allowable Subject Matter***

5. Claims 1-3, 6 and 8-10 allowed.

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6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claim 1, the prior arts fail to teach "selecting a pilot signal emanating from one of said base station or said more than one intelligent relays based upon strength of said pilot signal at said at least one user equipment element; reporting a strongest source of said pilot signal to said base station; distributing an active user list, scheduling information, and routing information among said more than one intelligent relays such that said at least one user equipment element is assigned to a corresponding one of said more than one intelligent relays", as cited in the claim.

### Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883. The examiner can normally be reached on Monday through Friday from 8:30AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN

December 19, 2005

EDAN ORGAD  
PATENT EXAMINER/TELECOM/IV

2.0. 12/21/05